

Putnam Street Bridge
(Marietta Bridge)
Harmar Historic District
Spanning the Muskingum River on Putnam Street, north of the
confluence of the Muskingum River with the Ohio River

Marietta
Washington County
Ohio

HAER No. OH -117

HAER
OHIO
84-MARIE,
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Great Lakes Systems Office
Department of the Interior
1709 Jackson Street

HISTORIC AMERICAN ENGINEERING RECORD
INDEX TO PHOTOGRAPHICS
PUTNAM STREET BRIDGE (MARIETTA BRIDGE)
HAER No. - OH - 117

HAER
OHIO
84-MARIE
1-

Putnam Street Bridge
(Marietta Bridge)
Harmar Historic District
Spanning the Muskingum River on Putnam Street, north of the
confluence of Muskingum River with the Ohio River

Marietta
Washington County
Ohio

Photographer: (Views 4-11) Deborah Dobson-Brown
(Views 1-3, 12-32) Dawn Herr

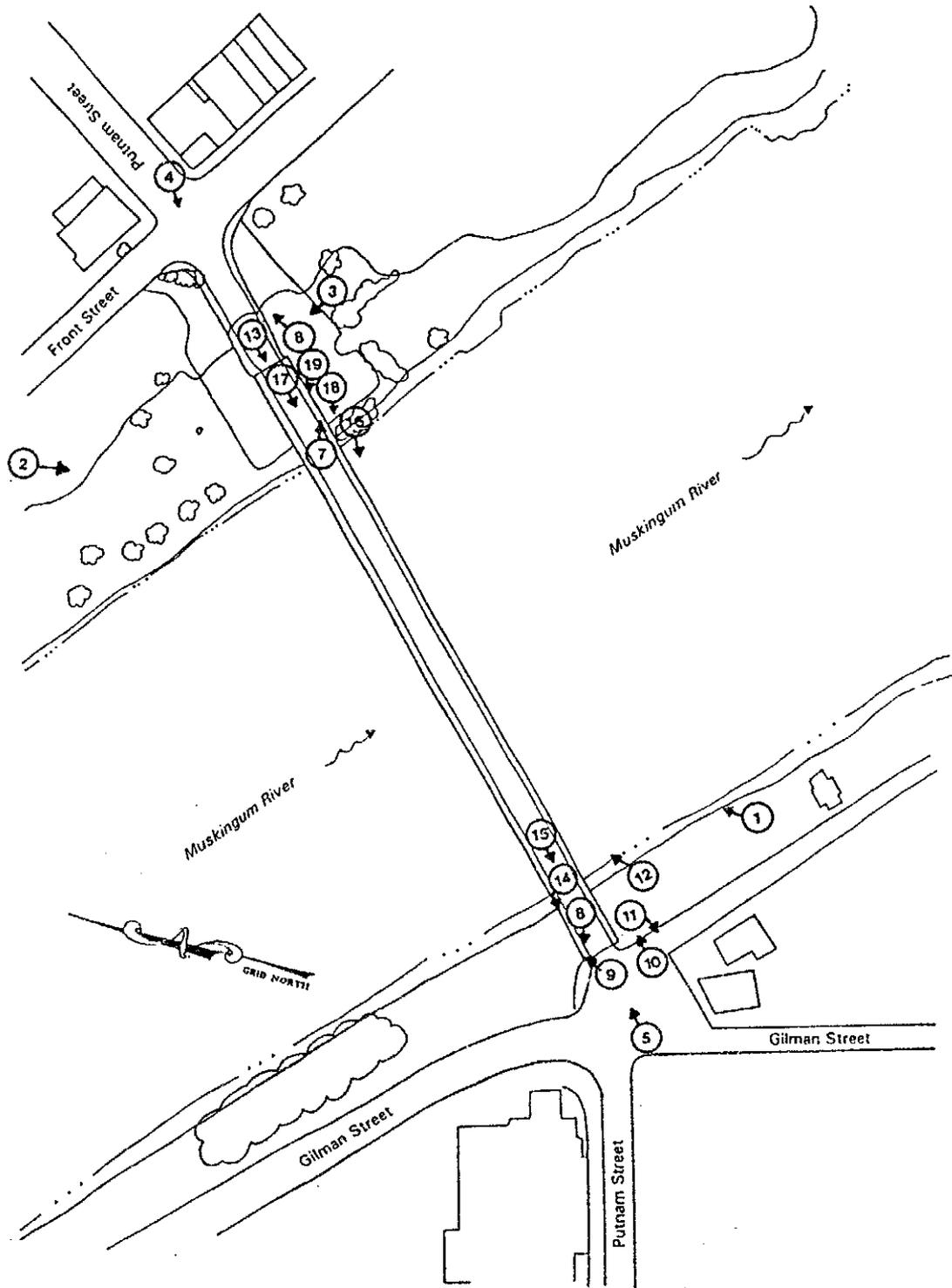
November 1996
November 1996

- OH-117-1 General view of bridge within setting, southeast elevation
VIEW NORTHEAST
- OH-117-2 General view of bridge within setting, northwest elevation
VIEW SOUTHEAST
- OH-117-3 View of north end span
VIEW NORTHWEST
- OH-117-4 Northeast end approach across traffic level showing roadway
VIEW SOUTHWEST
- OH-117-5 Southeast end approach across traffic level showing roadway
VIEW NORTHEAST
- OH-117-6 Northeast abutment and railing
VIEW NORTHEAST
- OH-117-7 Northeast concrete railing
VIEW EAST
- OH-117-8 Steel rail and hand rails
VIEW WEST
- OH-117-9 Steel rail, hand rail and steel supports
VIEW NORTHEAST
- OH-117-10 Southwest end abutment and concrete wall
VIEW NORTHEAST

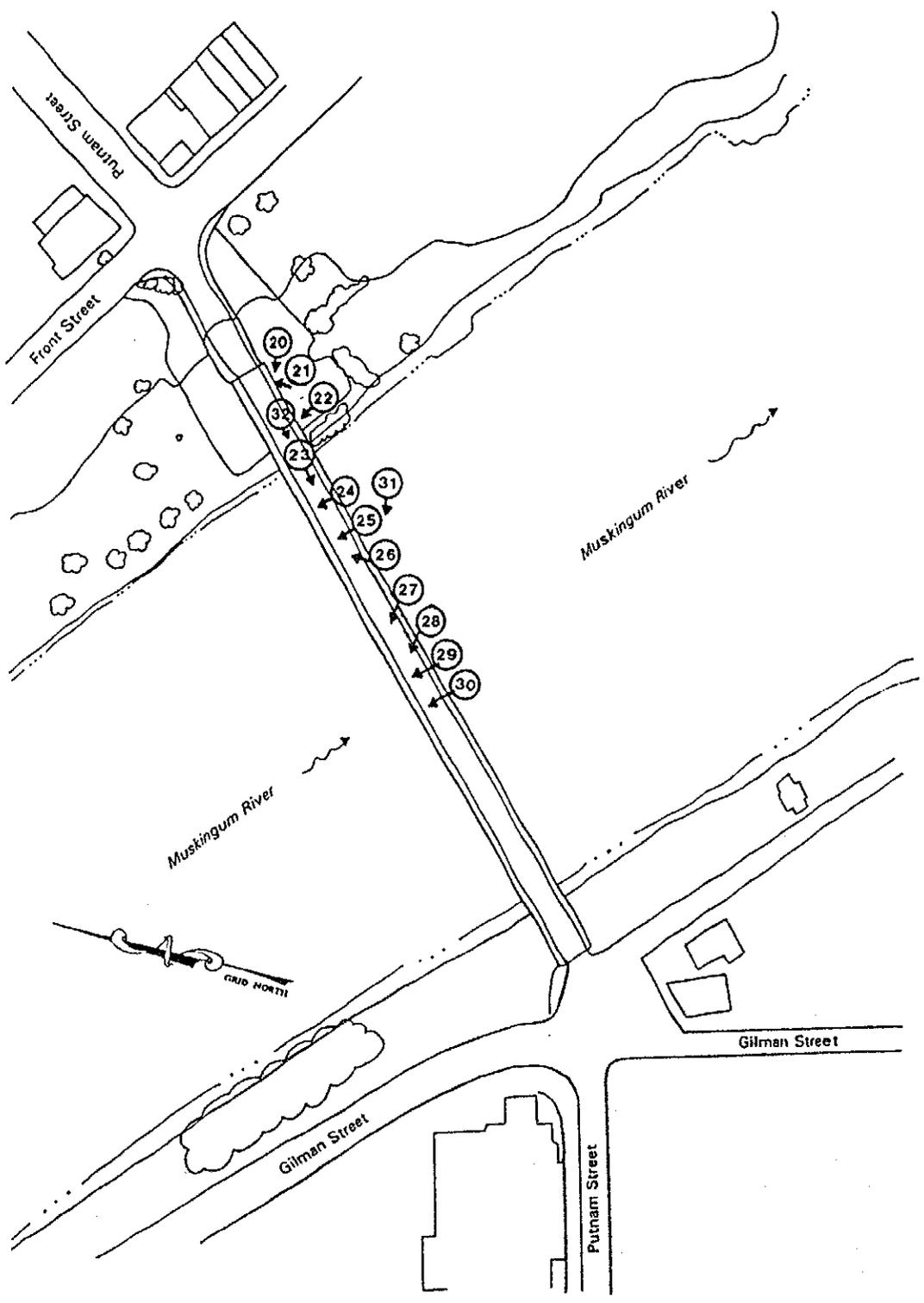
- OH-117-11 Southwest end abutment and concrete wall
VIEW SOUTHWEST
- OH-117-12 Stone piers
VIEW NORTHEAST
- OH-117-13 Northeast end pier
VIEW SOUTHWEST
- OH-117-14 Southwest end pier, steel girders
VIEW WEST
- OH-117-15 Southwest end pier, abutment and steel girders
VIEW WEST
- OH-117-16 Stone pier with turning gear, steel girders and webs
VIEW WEST
- OH-117-17 Steel girders
VIEW SOUTHWEST
- OH-117-18 Steel girders, underdeck, webs, turning gear on top of pier
VIEW SOUTHWEST
- OH-117-19 Steel girders, webs, underdeck
VIEW WEST
- OH-117-20 Webs, steel shoes, underdeck, concrete cap of pier and abutment
VIEW WEST
- OH-117-21 Steel girders, underdeck, steel shoes, concrete cap of pier
VIEW NORTH
- OH-117-22 Steel girders, underdeck, webs
VIEW NORTHWEST
- OH-117-23 Wood walkway, steel trusses, steel rail and handrail
VIEW SOUTHWEST
- OH-117-24 Splice in bridge where bridge swings apart
VIEW NORTHWEST
- OH-117-25 View of trussing
VIEW NORTHWEST

- OH-117-26 View of trussing
VIEW NORTH
- OH-117-27 View of trussing
VIEW WEST
- OH-117-28 View of trussing and location of control house
VIEW WEST
- OH-117-29 View of trussing
VIEW NORTHWEST
- OH-117-30 View of trussing
VIEW NORTHWEST
- OH-117-31 View of turning gears on trussing
VIEW WEST
- OH-117-32 View of manufacturers plaque
VIEW SOUTHWEST

Putnam Street Bridge (Marietta Bridge)
HAER No. OH-117
(page 4)



Putnam Street Bridge (Marietta Bridge)
HAER No. OH-117
(page 5)



HISTORIC AMERICAN ENGINEERING RECORD
PUTNAM STREET BRIDGE (MARIETTA BRIDGE)
HAER NO. OH - 117

HAER
OHIO
84-MARIE,
1-

Location: Putnam Street
(Marietta Bridge)
Harmar Historic District
Spanning the Muskingum River on Putnam Street,
north of the confluence of the Muskingum River with
the Ohio River

Marietta
Washington County
Ohio

QUAD: Marietta
Ohio/West Virginia
1:24,000

UTM: 17/460600/4362600

Date of Construction: 1914 (Modified 1951, 1953, 1972, 1986, & 1995)

Engineer/Builder: Nelson-Merydith Company

Present Owner: Washington County Engineer
204 Davis Avenue
Marietta, Ohio 45750

Present Use: Vehicular/Pedestrian Bridge. To be replaced by a new
vehicular/pedestrian bridge.
Projected removal date - Spring 1999

Significance: The original Putnam Street Bridge, built in 1800, was
the first free bridge crossing the Muskingum River in
Marietta, Ohio. That bridge was swept away in the
1913 flood. The present Putnam Street Swing bridge
was built on the same stone masonry piers/abutments.
Although the swing span is inoperable, it is one of four
remaining swing bridges in Ohio. The bridge is eligible
for listing on the National Register and is identified as a
contributing element to the Harmar National Register
Historic District.

Historian: Howard R. Hoehn, HNTB OHIO INC. December 1997

I - HISTORY

The City of Marietta is the site of the first inland settlement of the United States outside of the original thirteen colonies. As the first settlement in the Northwest Territory, the city is called the site of the westward settlement of the United States and parks have been established commemorating this aspect on both the east and west banks of the Muskingum River within the central business district. The Harmar District is located along the western bank and Marietta on the eastern bank.

Since 1880, a bridge has connected these two downtown areas of Marietta. The Putnam Street Bridge, also called the Marietta Bridge, was the first "free" bridge built crossing the Muskingum River in Marietta, Ohio. The present bridge replaced the original 1880 bridge which was swept away in the 1913 flood. The replacement structure was built on the piers and abutments of its predecessor. A Swing Span on the east bank, now welded shut, was incorporated to allow large river boat traffic to pass. At present, this bridge is one of only four (4) remaining Swing Bridges in Ohio.

The Harmar Historic District, which predates the 1788 settlement of the City of Marietta, was entered onto the National Register of Historic Places in 1974. The Putnam Street Bridge has been identified as a contributing element to the Harmar National Register Historic District. The Ohio Department of Transportation has identified the Putnam Street Bridge as a Selected Bridge, eligible for listing on the National Register.

In 1974, the Marietta Historic District was included on the National Register of Historic Places. Thus the Putnam Street Bridge, though not a National Register Property itself, connects two National Register Historic Districts.

Because of the continuing deterioration, the bridge has undergone several repair programs in 1972, 1988 and again in 1993. Due to further deterioration, the low legal load limitations, restricted traffic volume capacity and the high cost of maintenance, the existing structure will be removed and replaced by a new structure maintaining the historic architectural integrity appropriate for this historic area.

The new bridge will not replicate the existing structure but has been designed to compliment the visual features of the Marietta and Harmar National Register Historic Districts. Design features and details have been coordinated with the Ohio State Historic Preservation Office.

II - THE BRIDGE

Description

The Putnam Street Bridge is 768-ft-long and 44 ft- 7in -wide and carries two 12-ft-wide traffic lanes and two 6-ft-wide sidewalks. Construction of the sidewalks and traffic lanes was of wooden planks. Two street car tracks were originally incorporated into the traffic lanes.

The bridge consists of four truss spans. A 229-ft-long swing span is flanked on the east by a 229-ft-long pin connected through truss span and a short retained earth span. On the west it is flanked by two 210-ft-long pin connected through truss spans.

The eastern most truss is a Parker, as are the two spans closest to the western bank. The middle span is similar to a Parker but has been modified to support the swing-span with a space above for the bridge tenders house.

In 1960 a three-ton load limit was placed on the bridge to conform to State regulations. This remains in effect and restricts local commercial truck traffic and emergency vehicle traffic from using the bridge.

The structure is supported by four stone masonry piers and stone masonry abutments. These features were constructed for the structure preceding the existing bridge which was swept away in the flood of 1913. The original piers and abutments were incorporated into the current structure. The wooden sidewalks remain, however, the traffic lanes were replaced by a concrete deck.

The Nelson-Merydith Company of Marietta built the structure in 1914.

Role in Local Transportation

The Putnam Street Bridge connects the two downtown areas of Marietta; the Harmar District and the Marietta Central Business District. The bridge serves as the principal historic link between these two districts for commerce, employment, entertainment and worship. Currently the bridge provides local arterial service.

A local rail street car line originally crossed the bridge connecting the two business districts. The tracks were removed when the wooden vehicular deck was replaced with a concrete deck in 1951.

Originally State Route 7 was routed over the Putnam Street Bridge. When the Washington Street Bridge was opened State Route 7 was rerouted to the new structure.

Significance of the Crossing

Since 1880, a bridge between Putnam Street and Putnam Avenue has connected the two downtown areas of Marietta, the Harmar District and the Marietta Central Business District. Both of these districts are listed as National Register Historic Districts (See exhibits 3 and 4). The Putnam Street Bridge is a contributing element to the Harmar National Register Historic District.

The bridge is one of two vehicular bridges over the Muskingum River in Marietta, Ohio and served as the principle arterial for cross river traffic until 1953 when the Washington Street Bridge was opened.

Traffic volume on the structure has continually increased and the projections indicate that a four-lane structure is required to serve the vehicular needs. Currently commercial and emergency vehicle traffic is restricted due to the existing three-ton load limit. A new bridge is needed to replace the deteriorating bridge to maintain the link between eastern and western Marietta, to preserve the integrity of the Harmar and Marietta National Register Historic Districts, and to allow automobiles, commercial truck traffic and emergency vehicles to utilize the structure, and to provide for the existing and projected traffic volumes.

Modifications

Many repairs have been made over the years to the structure as a part of routine maintenance. The following modifications have altered the original appearance and design of the bridge:

- 1951 Timber wood vehicular deck was replaced with new concrete deck with open joint down the middle.
- 1952 Repair work done on all bridge sidewalks, railing supports, brackets and lattice. All of the handrail caps were replaced.
- 1953 Steel Swing Span was welded shut.
- 1968 Legal Load Limit was reduced to 5500 pounds.
- 1969 The Locks and Lock Walls of Dam #1 and the bridge fenders protecting the swing span in its "open" position were removed.

1972 New sidewalk timbers were installed. Repairs were made to various truss members, trusses were raised, bearings were repaired and sheet piling and tremie concrete was placed around piers 3 and 4. Deteriorating masonry stone pier caps and abutments were repaired with concrete. Bridge was cleaned and painted. Approaches were widened and resurfaced.

1986 Bridge was repainted and repairs were made to the lower superstructure near pier #4. The Bridge Tenders House was removed.

1987 Pier cap was replaced with concrete on pier #4.

1993 Twenty-one I-Bars were reinforced with steel to replace section loss, due to rust, of the original I-Bars. Upper lateral braces and brackets were repaired.

Hanging rubber belts were installed as height barriers on each end span of the bridge.

1995 Rigid structure steel restrictive devices replaced the hanging rubber belts to provide a more substantial device to deter over-sized vehicles.

Minor repairs were made to floorbeams, upper lateral braces, machinery supports and rail diaphragms.

III - BIBLIOGRAPHY

A - REPORTS

Federal Highway Administration/ Ohio Department of Transportation, Draft Environmental Impact Statement/ Section (4) Evaluation for the Proposed Putnam Street Bridge Replacement, January 1996.

Junk, Paul F. 1989, Final Preliminary Alternatives Summary of the Location Study for a New Muskingum River Crossing at Marietta, Ohio, April 27, 1989.

B - MODIFICATIONS

Sushka, Ted W., Putnam Street Bridge Repairs , June 1997.

C - INTERVIEWS

Sushka, Ted W. , Washington County Engineer - April, 1997

Sushka, Ted W. , Washington County Engineer - May, 1997

Sushka, Ted W. , Washington County Engineer - June, 1997

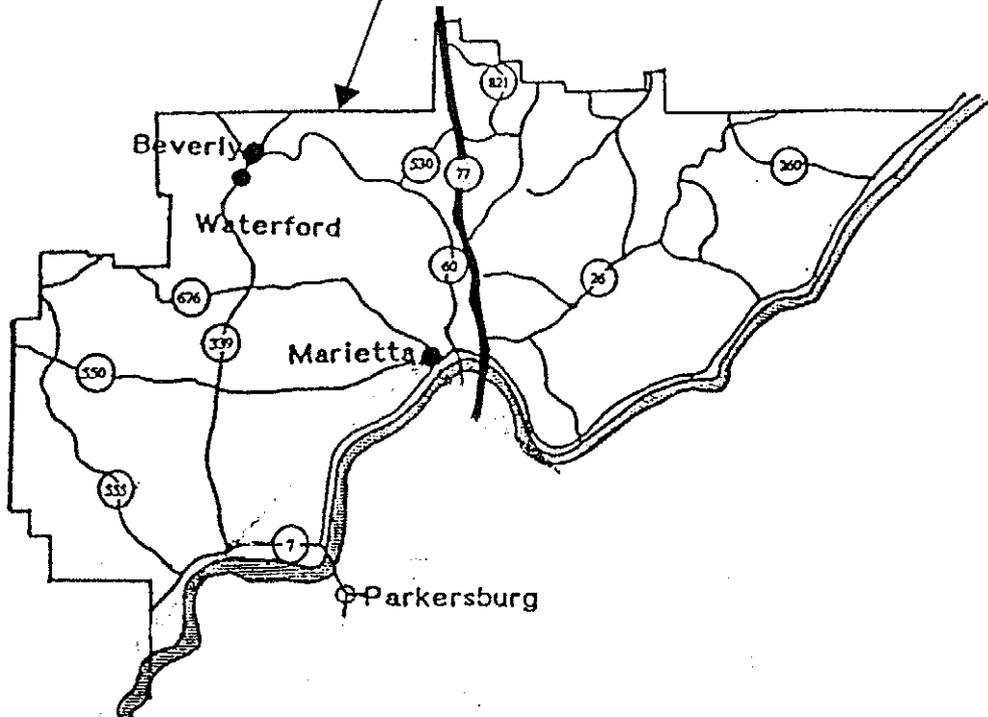
D - DRAWINGS

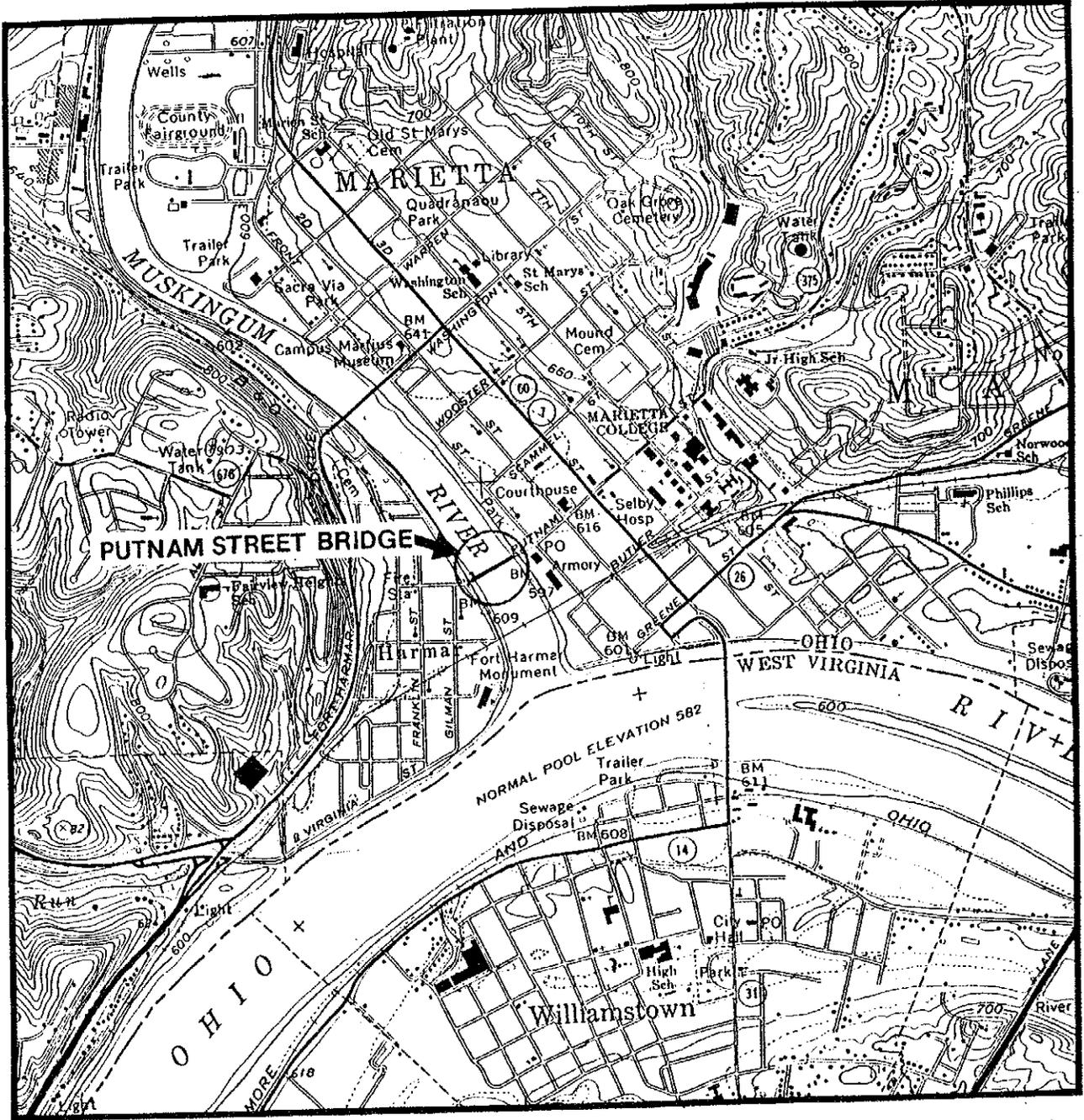
Original engineering drawings on file with the Washington County Engineer
204 Davis Avenue
Marietta, Ohio 45750
(614) 376- 7430

OHIO



WASHINGTON COUNTY





MARIETTA, OHIO

